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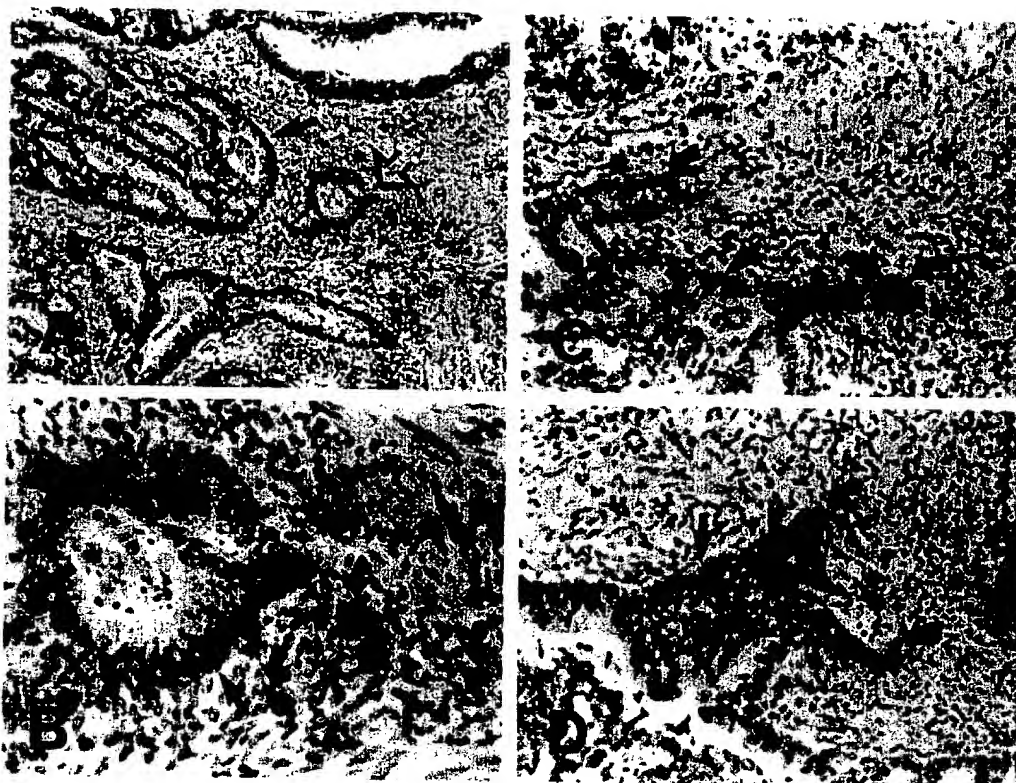


FIGURE 1



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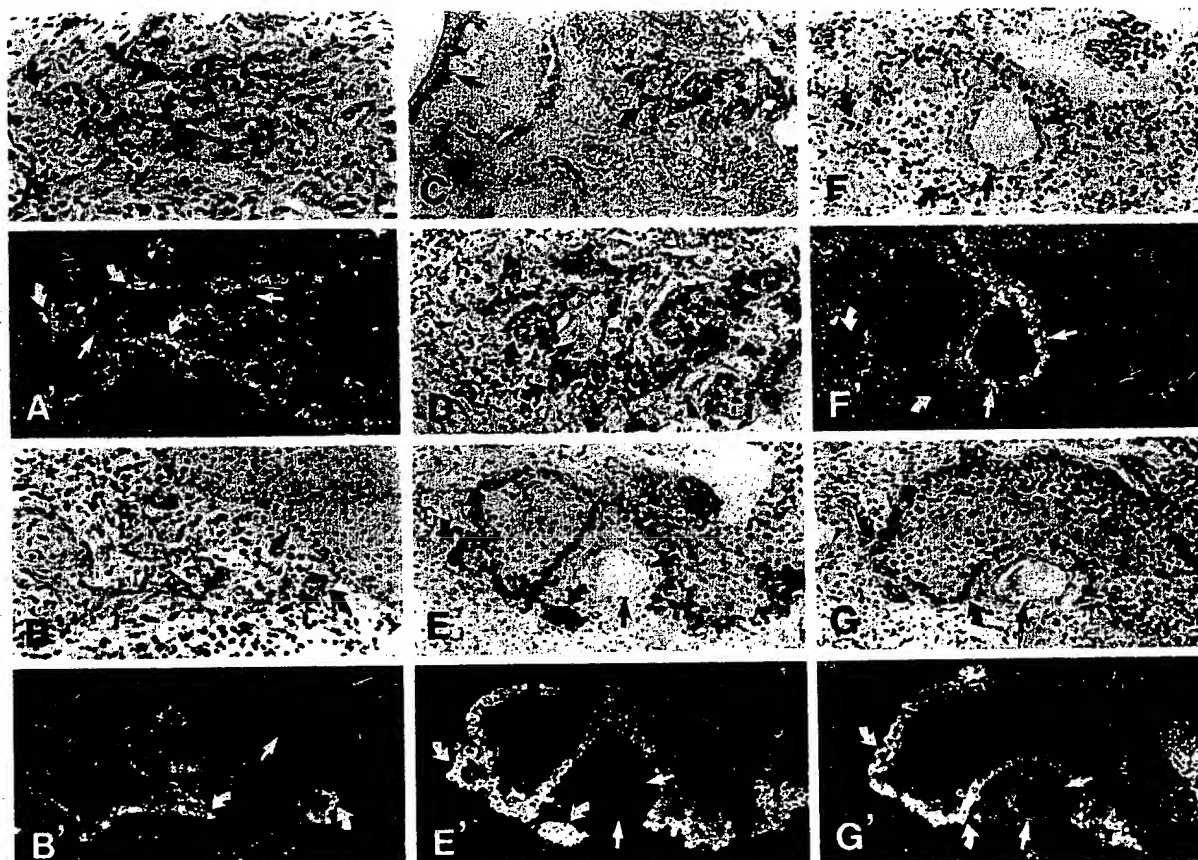


FIGURE 2



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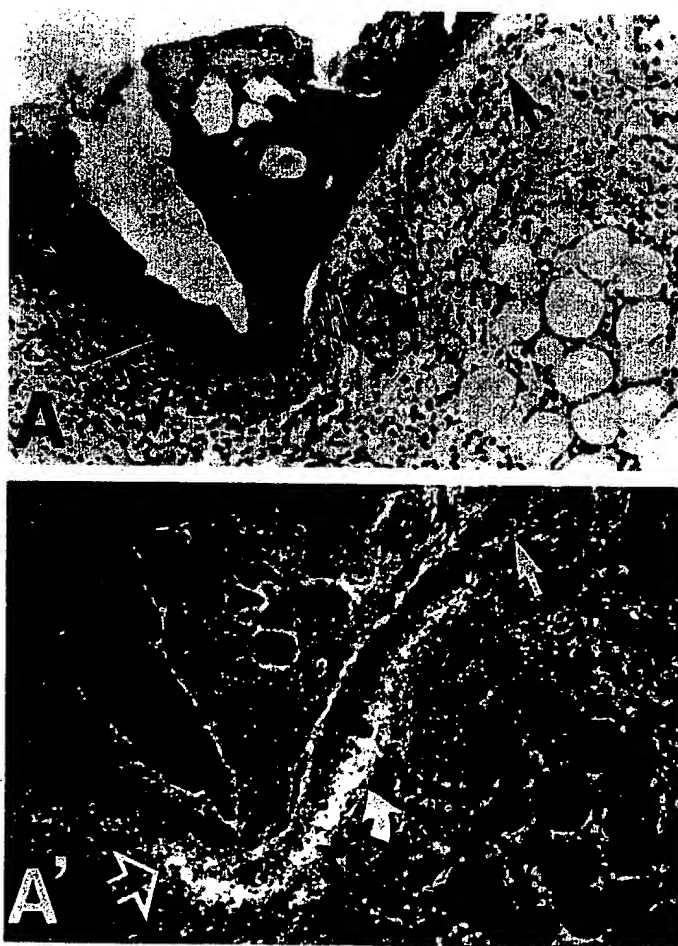


FIGURE 3

**FIG 4A**

1 gaccacctga tcgaaggaaa aggaagggcac agcggagcgc agagtggaaa ccaccaaccc  
61 aggcgcccgg cagcgacccc tgcagcggag acagagactg agcggccccg caccgccatg  
M  
121 cctgcgtctt ggctgggctg ctgcctctgc ttctgcgtcc tcttgcccgc agccccggcc  
2 P A L W L G C C L C F S L L L P A A R A  
181 acctccagga gggaagtctg tgattgcaat gggaagtcca ggcaagtgtat ctttgatcgg  
22 T S R R E V C D C N G K S R Q C I F D R

⇒ Domain V

241 gaacttcaca gacaaactgg taatggattc cgctgcctca actgcaatga caacactgat  
42 E L H R Q T G N G F R C L N C N D N T D  
301 ggcatcact gcgagaagt caagaatggc ttttaccggc acagagaaaag ggaccgctgt  
62 G I H C E K C K N G F Y R H R E R D R C  
361 ttgccttgca attgtaactc caaagggtct cttagtgtc gatgtgacaa ctctggacgg  
82 L P C N C N S K G S L S A R C D N S G R  
421 tgcagctgta aaccaggtgt gacaggagcc agatgcgacc gatgtctgcc aggcctccac  
102 C S C K P G V T G A R C D R C L P G F H  
481 atgctcacgg atcggggggtg cacccaagac cagagactgc tagactccaa gtgtgactgt  
122 M L T D A G C T Q D Q R L L D S K C D C  
541 gaccacagctg gcatcgtagg gccctgtgac gcggggcgct gtgtctgcaa gccagctgtt  
142 D P A G I A G P C D A G R C V C K P A V  
601 actggagAAC cgtgtgatag gtgtcgatca ggtactata atctggatgg ggggaacctt  
162 T G E R C D R C R S G Y Y N L D G G N P  
661 gagggctgta cccagtgttt ctgctatggg cattcagcca gctgccgcag ctctgcagaa  
182 E G C T Q C F C Y G H S A S C R S S A E

⇒ Domain IV

721 tacagtgtcc ataagatcac ctctaccttt catcaagatg ttgatggctg gaaggctgtc  
202 Y S V H K I T S T F H Q D V D G W K A V  
781 caacgaaatg ggtctcctgc aaagctccaa tggtcacagc gccatcaaga tgtgtttagc  
222 Q R N G S P A K L Q W S Q R H Q D V F S  
841 tcagcccaac gactagatat tgtctatttt gtggctcctg ccaaatctt ttgggaatcaa  
242 S A Q R L D P V Y F V A P A K F L G N Q  
901 cagggtgagct atggggcaaac cctgtccttt gactaccgtg tggacagagg aggcagacac  
262 Q V S Y G Q S L S F D Y R V D R G G R H  
961 ccactctgcc atgatgtgat cctggaaggt gctgggtctac ggatcacagc tcccttgtat  
282 P S A H D V I L E G A G L R I T A P L M  
1021 ccacttggca agacactgcc ttgtgggttc accaagactt acacattcag gttaaatgag  
302 P L G K K T L P C G L T K T Y T F R L N E  
1081 catccaagca ataattggag cccccagctg agttactttg agtatcgaag gttactgcgg  
322 H P S N N W S P Q L S Y F E Y R R L L R  
1141 aatctcacag ccctccgcct ccgagctaca tatggagaat acagtactgg gtacattgac  
342 N L T A L R I R A T Y G E Y S T G Y I D  
1201 aatgtgaccc tgatttcage ccgccctgtc ttgggagccc cagcaccctg ggttgaacag  
362 N V T L I S A R P V S G A P A P W V E Q  
1261 tgtatatgtc ctgttgggta caaggggcaa ttctgcccag atttgtcttc tggctacaag  
382 C I C P V G Y K G Q F C Q D C A S G Y K

⇒ Domain III

1321 agagattcag cgagactggg gcccttttggc acctgtattc cttgttaactg tcaaggggga  
402 R D S A R L G P F G T C I P C N C Q G G  
1381 ggggcctgtg atccagacac aggagattgt tattcagggg atgagaatcc tgacattgag  
422 G A C D P D T G D C Y S G D E N P D I E  
1441 tgtgttgact gcccaattgg ttctacaac gatccgcacg acccccgcag ctgcaagcca  
442 C A D C P I G F Y N D P H G D P R S C K P  
1501 tgtccctgtc ataacgggtt cagctgtcta gtgattccgg adagcgggsa ggtgtgtgtc  
462 C P C H N G F S C S V I P E T E E V V C

FIG 4B

(SEQ ID NO.:12 & 13)

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1561 aataactgcc ctccccgggt caccgggtgcc cgctgtgagc tctgtgctga tggctacctt
482 N N C P P G V T G A R C E L C A D G Y F
1621 ggggacctt ttgggaaca tggccagtg aggcctgtc agccctgtca atgcaacagc
502 G D P F G E H G P V R P C Q P C Q C N S
1681 aatgtggacc ccagtgcctc tgggaattgt gaccggctga caggcagggt tttgaagtgt
522 N V D P S A S G N C D R L T G R C L K C
1741 atccacaaca cagccggcat ctactgcgac cagtgcgaaq caggctactt cggggaccca
542 I H N T A G I Y C D Q C K A G Y F G D P
1801 ttggctccca acccagcaga caagtgtcga gcttgcaact gtaaccccat gggctcagag
562 L A P N P A D K C R A C N C N P M G S E
1861 cctgtaggat gtcgaagtga tggcacctgt gtttgcaagc caggatttgg tggccccaac
582 P V G C R S D G T C V C K P G F G G P N
1921 tgtgagcatg gagcattcag ctgtccagct tgctataatc aagtgaagat tcagatggat
602 C E H G A F S C P A C Y N Q V K I Q M D

      I-> Domain I/II

1981 cagtttatgc agcagcttca gagaatggag gccctgattt caaaggctca ggggtggat
622 Q F M Q Q L Q R M E A L I S K A Q G G D
2041 ggagtagtac ctgatacaga gctggaaggc aggatgcagc aggctgagca ggccttcag
642 G V V P D T E L E G R M Q Q A E Q A L Q
2101 gacattctga gagatgccc gatttcagaa ggtgctagca gatcccttgg tctccagttg
662 D I L R D A Q I S E G A S R S L G L Q L
2161 gccaaagtga ggagccaaga gaacagctac cagagccgcc tggatgacct caagatgact
682 A K V R S Q E N S Y Q S R L D D L K M T
2221 gtggaaagag ttccgggtctt gggagtcag taccagaacc gagttcggga tactcacagg
702 V E R V R A L G S Q Y Q N R V R D T H R
2281 ctcatcactc agatgcagct gagcctggca gaaagtgaag ctcccttggg aaacactaac
722 L I T Q M Q L S L A E S E A S L G N T N
2341 attcctgcct cagaccacta cgtggggcca aatggcttta aaagtctggc tcaggaggcc
742 I P A S D H Y V G P N G F K S L A Q E A
2401 acaagattag cagaaagcca cgttgagtc gccagtaaca tggagcaact gacaaggga
762 T R L A E S H V E S A S N M E Q L T R E
2461 actgaggact attccaaaca agccctctca ctggtgcgca aggccttgc tgaaggagtc
782 T E D Y S K Q A L S L V R K A L H E G V
2521 ggaagcggaa gcggtagccc ggacggtgct gtggtgcaag ggcttgtgga aaaattggag
802 G S G D G A V V Q G L V E K L E
2581 aaaaccaagt ccctggccca gcagttgaca agggaggcca ctcaagcggg aattgaagca
822 K T K S L A Q Q L T R E A T Q A E I E A
2641 gataggtctt atcagcacag tctccgcctc ctggattcag tgtctccgct tcaggaggctc
842 D R S Y Q H S L R L L D S V S P L Q G V
2701 agtgatcagt cctttcaggt ggaagaagca aagaggatca acaaaaaagc ggattcactc
862 S D Q S F Q V E E A K R I K Q K A D S L
2761 tcaagcctgg taaccaggca tatggatgag ttcaagcgtc cacaaaagaa tctgggaaac
882 S S L V T R H M D E F K R T Q K N L G N
2821 tggaaagaag aagcacagca gctcttacag aatggaaaaa gtgggagaga gaaatcagat
902 W K E E A Q Q L L Q N G K S G R E K S D
2881 cagctgcttt cccgtgccaa tcttgctaaa agcagagcac aagaagcact gagtatgggc
922 Q L L S R A N L A K S R A Q E A L S M G
2941 aatgccactt tttatgaagt tgagagcatc cttaaaaacc tcagagagtt tgacctgcag
942 N A T F Y E V E S I L K N L R E F D L Q
3001 gtggacaaca gaaaagcaga agctgaagaa gccatgaaga gactctccta catcagccag
962 V D N R K A E A E E A M K R L S Y I S Q
3061 aaggtttcag atgccagtga caagaccag caagcagaaa gagccctggg gagcgtgct
982 K V S D A S D K T Q Q A E R A L G S A A
3121 gctgatgcac agagggcaaa gaatggggcc ggggaggccc tggaaatctc cagtgaagatt
1002 A D A Q R A K N G A G E A L E I S S E I

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FIG 4C

(SEQ ID NO.: 12 & 13)

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3181 gaacaggaga ttgggagtct gaacttggaa gccaatgtga cagcagatgg agccttggcc
1022 E Q E I G S L N L E A N V T A D G A L A
3241 atggaaaagg gactggcctc tctgaagagt gagatgaggg aagtggagg agagctggaa
1042 M E K G L A S L K S E M R E V E G E L E
3301 aggaaggagc tggagtttga cagcaatag gatgcagtac agatgggtgat tacagaagcc
1062 R K E L E F D T N M D A V Q M V I T E A
3361 cagaaggttg ataccagagc caagaacgct ggggttacaa tccaagacac actcaacaca
1082 Q K V D T R A K N A G V T I Q D T L N T
3421 ttagacggcc tcttgcattc gatggaccag cctctcagtg tagatgaaga ggggctgggc
1102 L D G L L H L M D Q P L S V D E E G L V
3481 ttactggagc agaagcttcc ccgagccaag acccagatca acagccaact gcggcccatg
1122 L L E Q K L S R A K T Q I N S Q L R P M
3541 atgtcagagc tggaaagagag ggcacgtcag cagagggggc acctccattt gctggagaca
1142 M S E L E E R A R Q Q R G H L H L L E T
3601 agcatagatg ggattctggc tgatgtgaag aacttggaga acattaggga caacctgccc
1162 S I D G I L A D V K N L E N I R D N L P
3661 ccaggctgct acaataccca ggctcttgag caacagtga gctgccataa atatttctca
1182 P G C Y N T Q A L E Q Q *

3721 actgaggttc ttgggataca gatctcaggg ctggggagcc atgtcatgtg agtgggtggg
3781 atggggacat ttgaacatgt ttaatgggtg tgctcaggtc aactgacctg accccattcc
3841 tgatcccatg gccagggtgt tgtcttattg caccatactc cttgtctcct gatgctgggc
3901 atgaggcaga taggcactgg tgtgagaatg atcaaggatc tggaccccaa agatagactg
3961 gatggaaaaga caaactgcac aggcagatgt ttgcctcata atagtctgaa gtggagtcct
4021 ggaatttggg caagtgtctg ttggatatag tcaacttatt ctttgagtaa tgtgactaaa
4081 ggaaaaaact ttgactttgc ccaggcatga aattcttcct aatgtcagaa cagagtgcac
4141 cccagtcaca ctgtggccag taaaatacta ttgcctcata ttgtcctctg caagcttctt
4201 gctgatcaga gtctctccta cttacaaccc aggggtgtgaa catgttctcc attttcaagc
4261 tggaaagaagt gagcagtgtt ggagtggagg cctgtaaggc aggccattc agagctatgg
4321 tgcttgctgg tgcttgccac cttcaagtcc tggacctggg catgacatcc tttcttttaa
4381 tgatgccatg gcaacttaga gattgcattt ttattaaagc atttctacc agcaaagcaa
4441 atgttgggaa agtatttact ttttcggttt caaagtgata gaaaagtgtg gcttgggcat
4501 tgaagagggt aaaattctct agatttatta gtcctaattc aatcctactt ttcgaacacc
4561 aaaaatgatg cgcatacatg tattttatct tattttctca atctcctctc tctttcctcc
4621 acccataata agagaatgtt cctactcaca cttcagctgg gtcacatcca tccctccatt
4681 catccttcca tccatcttcc catccattac ctccatccat ccttccaaca tatatttatt
4741 gagtacctac tgtgtgccag gggctgggtg gacagtgggt acatagtctc tgccctcata
4801 gaggttgatt tctagttagg aagacaagca tttttaaaaa ataaatttaa acttacaac
4861 tttgtttgtc acaagtgggt tttattgcaa taaccgcttg gtttgcaacc tctttgtcca
4921 acagaacata tgttgcaaga cctcccctg ggcactgagt ttggcaagga tgacagagct
4981 ctgggttggt cacatttctt tgcattccag cgtcactctg tgcttctac aactgattgc
5041 aacagactgt tgagttatga taacaccagt ggaattgct ggaggaacca gaggcacttc
5101 caccttggct gggaagacta tgggtgtgcc ttgcttctgt atttcttgg attttctga
5161 aagtgttttt aaataaagaa caattgttag atgccaaaaa //

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FIG 4D

(SEQ ID NO.: 14 & 15)

3421 ttagacggcc tcctgcatct gatgggtatg tgaaccacac acccacaacc ttccagctcc  
1102 L D G L L H L M G M \*

3481 atgctccagg gctttgctcc agaacactca ctatacctag ccccgacaaa ggggagtctc  
3541 agctttccctt aaggatatca gtaaattgtc tttgtttcca ggcccagata actttcggca  
3601 ggttccctta catttactgg accctgtttt accgttgcta agatgggtca ctgaacacct  
3661 attgcacttg ggggtaaagg tctgtggggc aaagaacagg tgtatataag caacttcaca  
3721 gaacacgaga cagcttggga atcctgctaa agagtctggc ctggaccctg agaagccagt  
3781 ggacagtttt aagcagagga ataacatcac cactgtatat ttcagaaaga tcaactagggc  
3841 agccgagtgg aggaagctt gaagaggggg ttagagagaa ggcagggtga gactacttaa  
3901 gatattgttg aaataattga agagagaaat gacaggagcc tgctctaagg cagtagaatg  
3961 gtggctggga agatgtgaag gaagattttc ccagtctgtg aagtcaagaa tcacttgccg  
4021 gccgggtgtg gtggctcacg cctgtaattc tagcactttg ggagactgaa gcgggtggat  
4081 cacccgaggt caggagtga agaccagcct ggccaacatg gtgaaaccct gtcttacta  
4141 aaagtacaaa aattagctgg atgatggtgg tgggcgcctg taattccagc tactcaggag  
4201 tctgaggcag gagaatcgct tgaaccagc aggcgagggt acagtgaacc aagattgcac  
4261 cactgctctt ccagcctggg aacagagaga ctgcctaataa aaaaaaaaaa aaaaaa //

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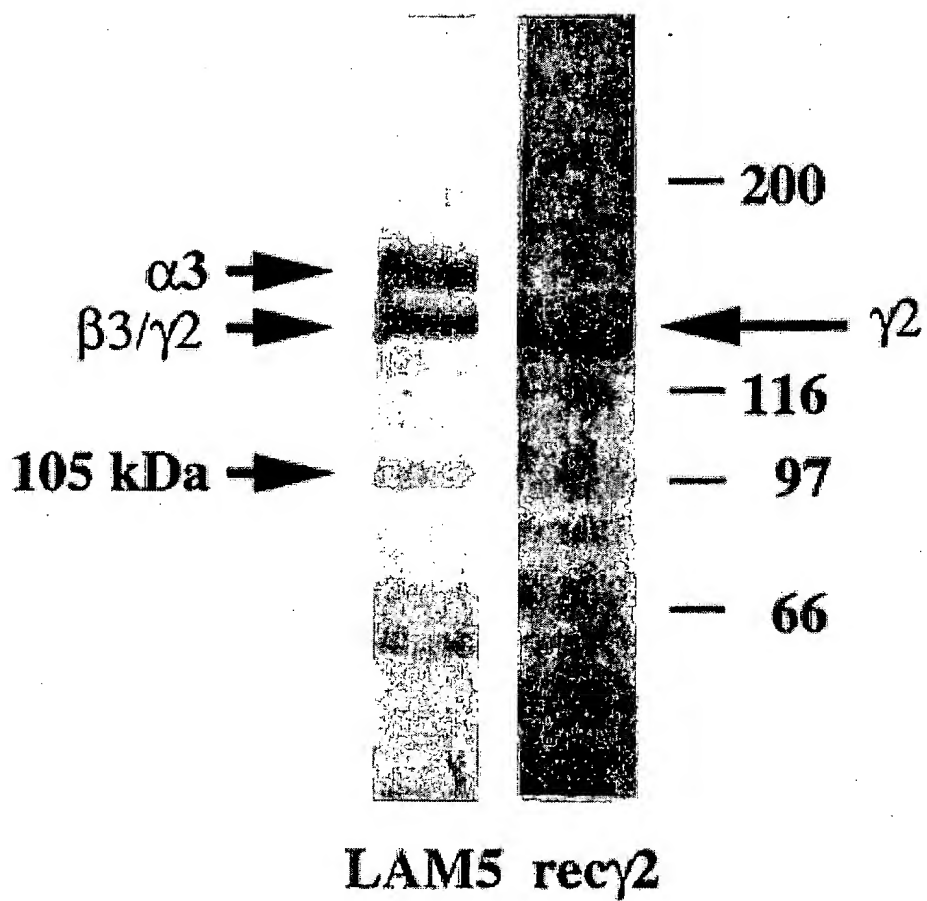


FIGURE 5



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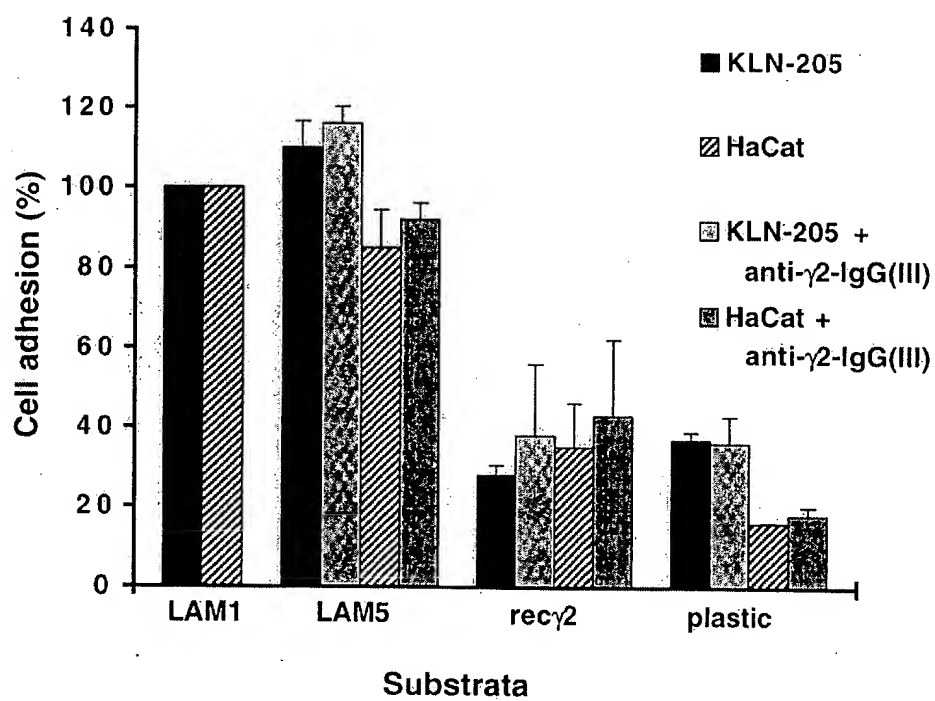


FIGURE 6

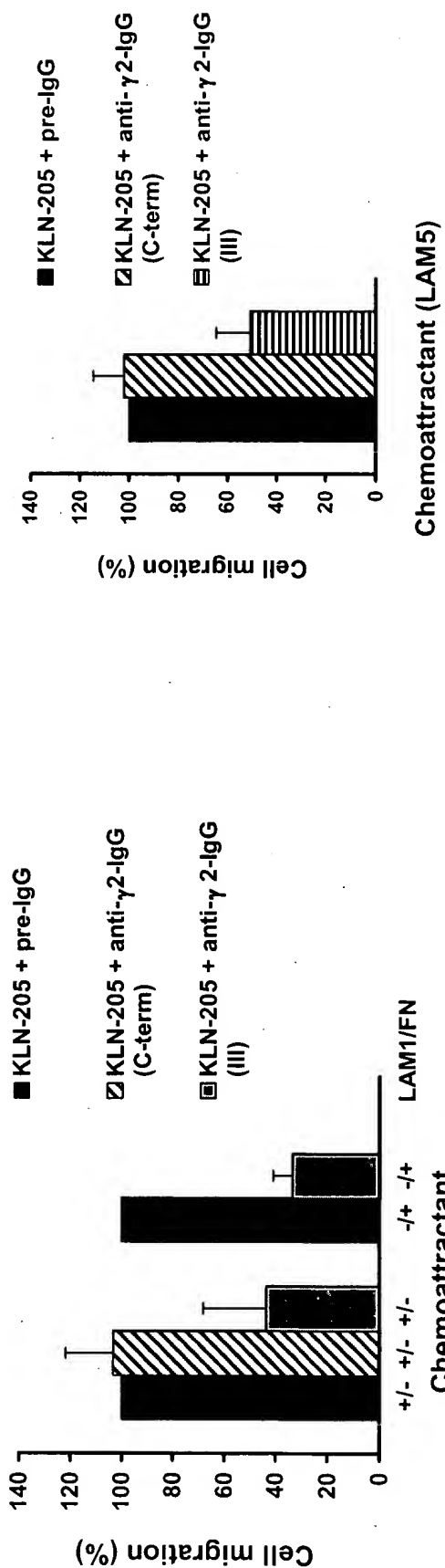
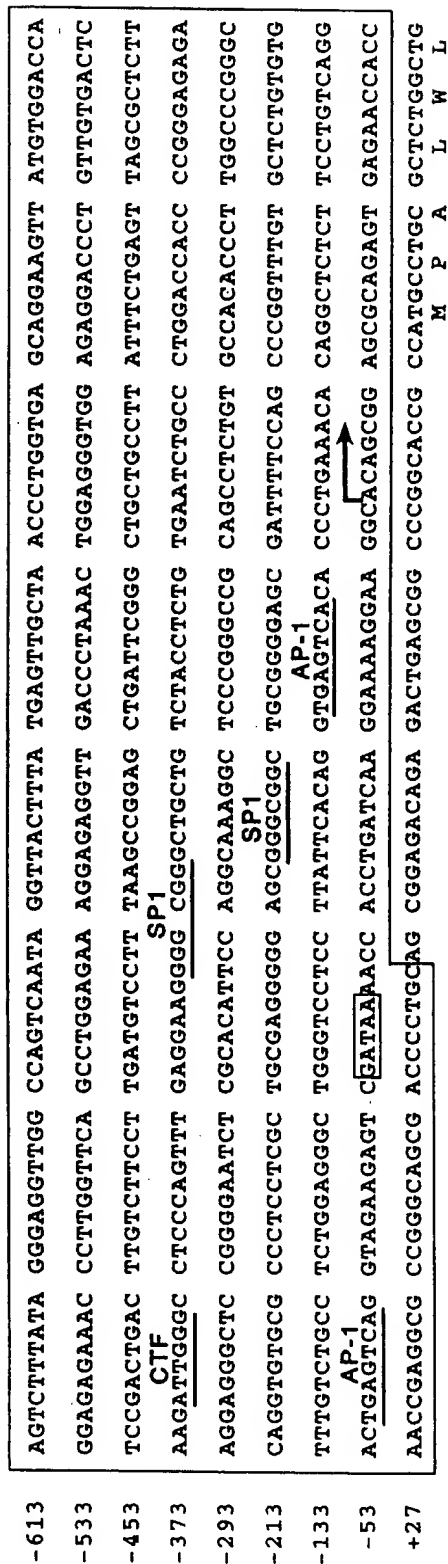


FIGURE 7



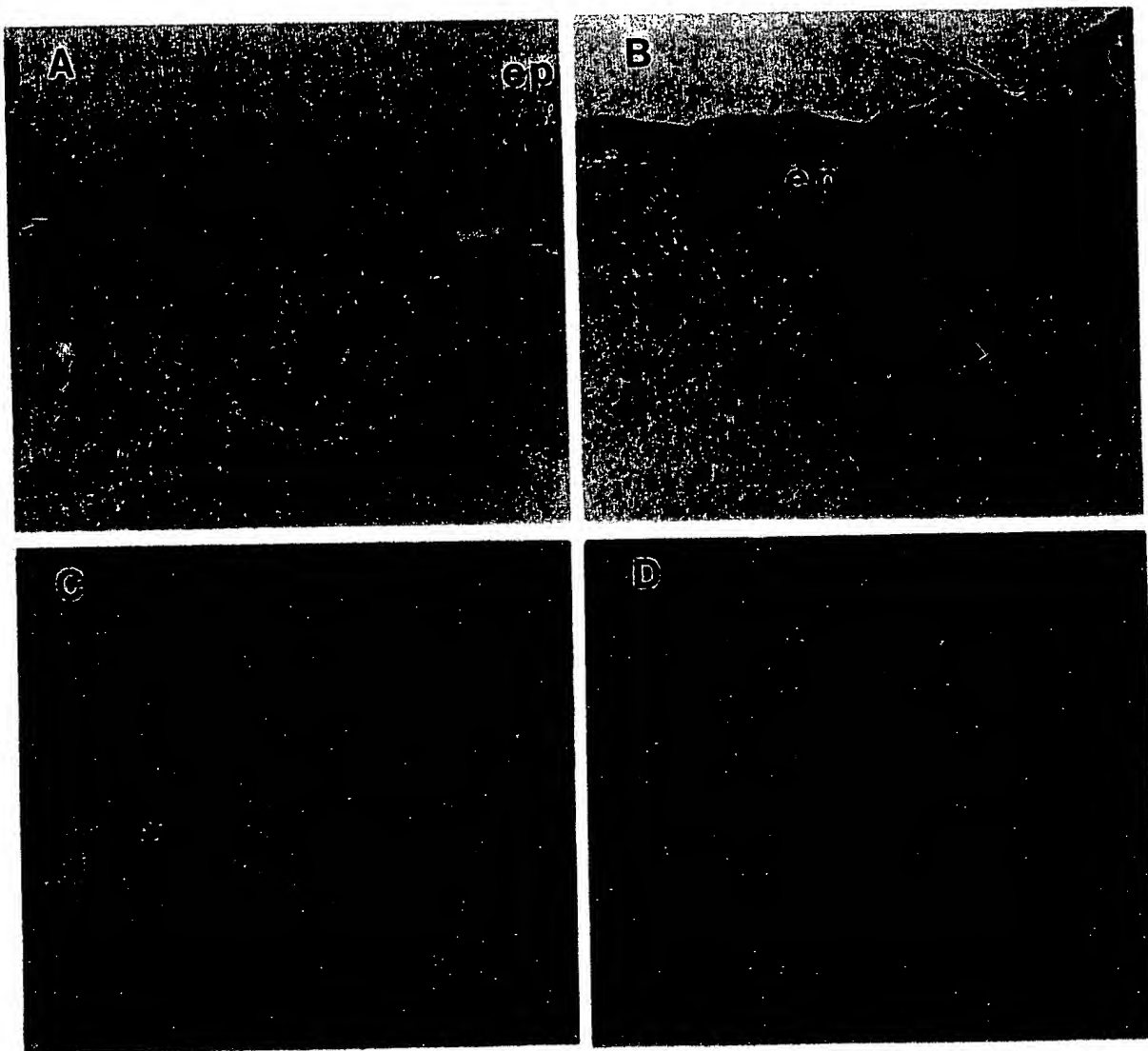
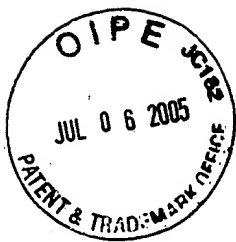


FIGURE 11

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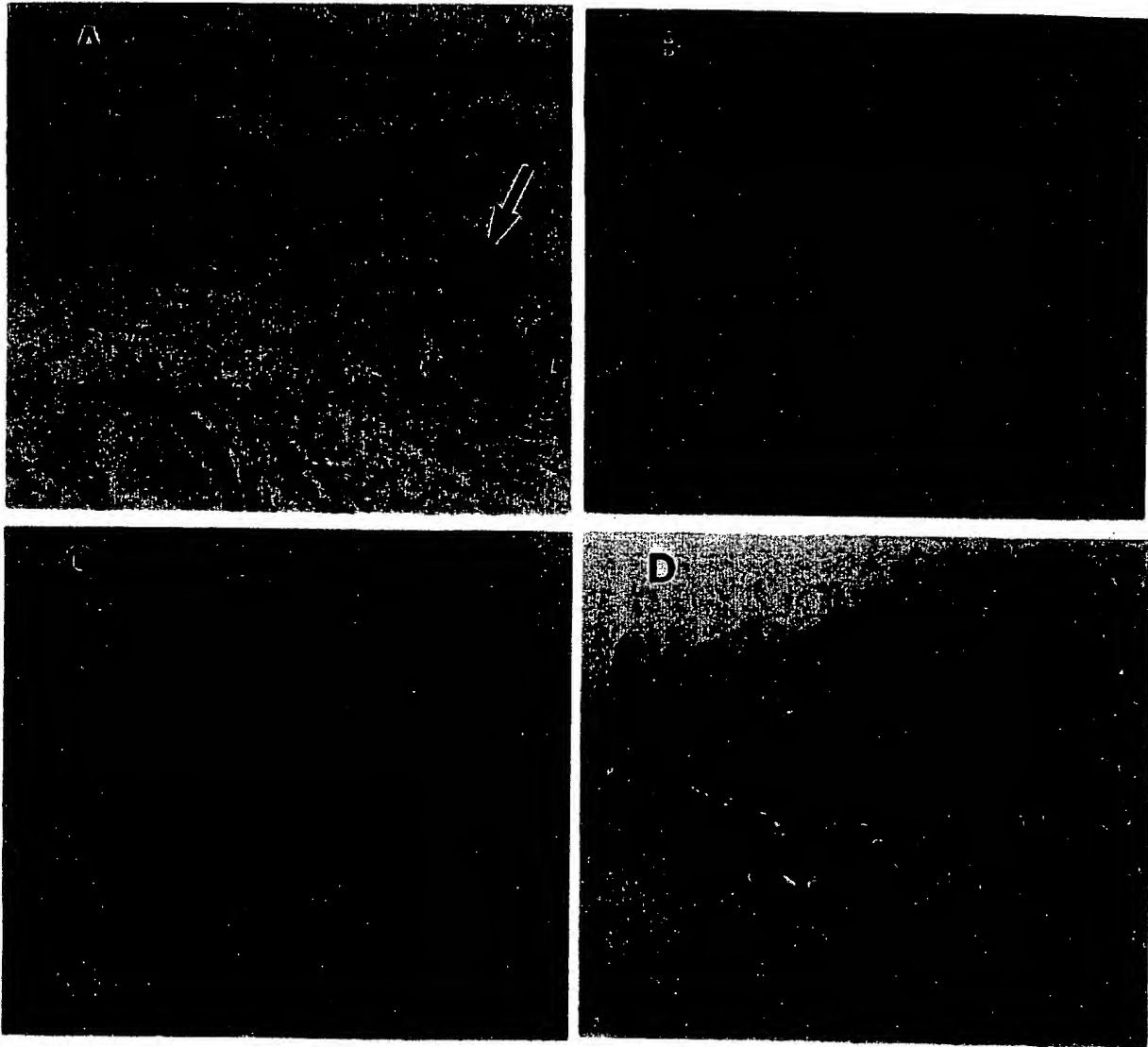


FIGURE 10



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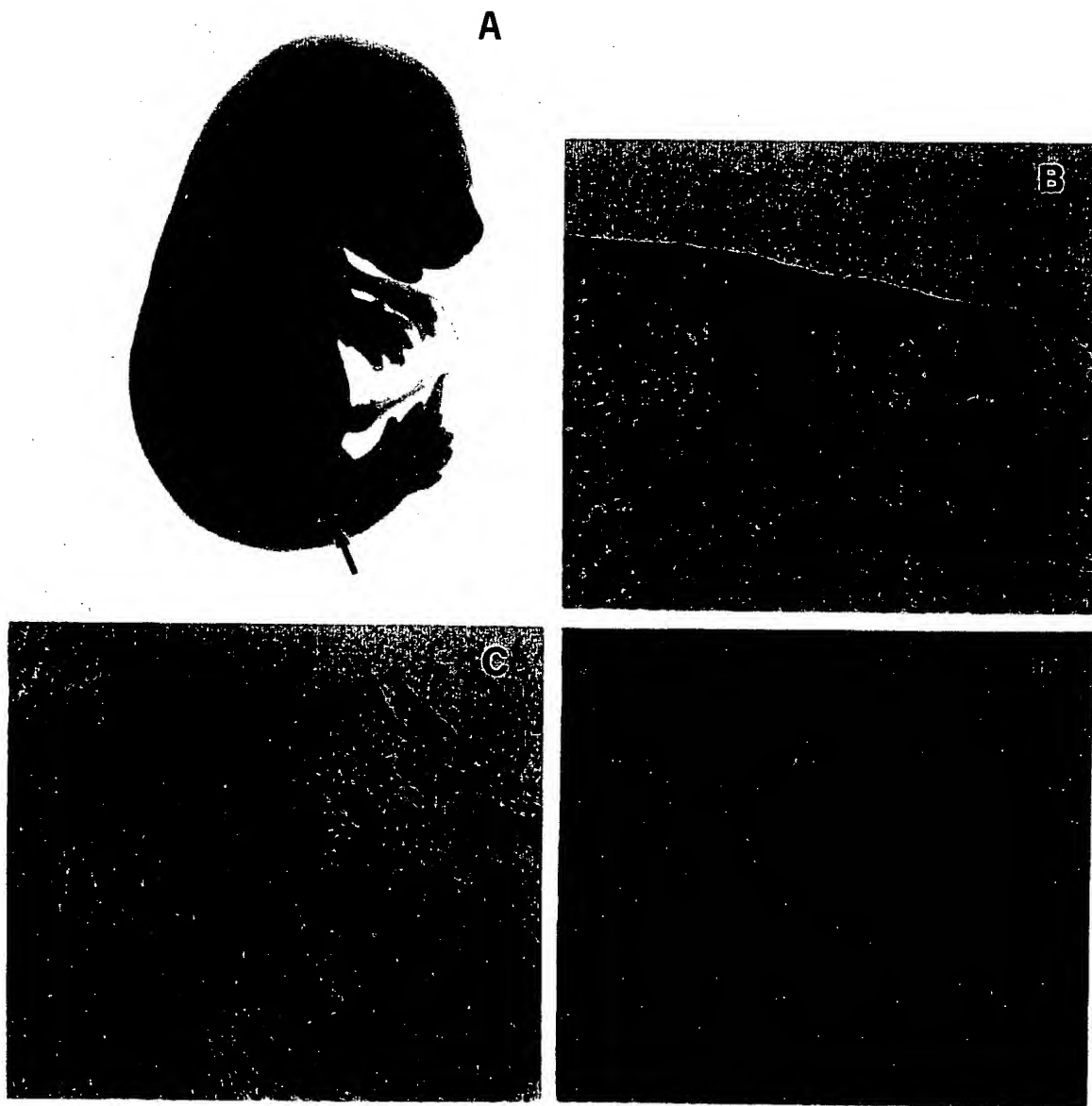


FIGURE 9